function as the magnet has been selected, one skilled in the art can easily select a material less hard and more flexible than the material chosen for the magnet. For example, in Irie et al (US 5,973435), the magnet utilized in the inductor may be a ferrite magnet, neodymium magnet or rare earth magnet. Applicants submit that one skilled in the art can easily select a material less hard and more flexible than the material comprising these types of magnets. Moreover, Applicants provide disclosure as to a preferred material for the strip at page 5, line 28-32 of the application, Applicants disclosing that the strip is glass fiber embedded in a pre-impregnated plastic.

Claims 1, 6, 7 and 13 were rejected for claim informalities and have been amended to provide clear antecedent basis and make positive recitation of the claimed subject matter. Specifically, Claims 1, 6 and 7 have been amended to recite "the grooved profile" as suggested by the Examiner and Claim 13 has been amended to positively recite the invention claimed.

Rejections Under 35 U.S.C. § 102

Claims 1-4 and 12-14 were rejected under 35 U.S.C. § 102(b) as being anticipated by Amlec et al (US 5,747,913, hereinafter "Amlec") . The Office Action asserts that Amlee teaches an alternator comprising claw poles interlaced, the claw pole having a groove (40A-B, 41A-B) accommodating at least one magnet (31) and a strip (203) interposed between the magnet and the groove, as shown in Figures 1-3 and 13-14.

Applicants respectfully traverse this rejection. Initially, Applicants submit that the Amlee does not anticipate Applicants' claimed invention. Amlee teaches an alternator having a channel formed cooperatively by opposing claw pole fingers. Amlee at col. 7, ln. 27. The spaces between the interlcaved pole fingers define magnet positions bounded by opposing respective side surfaces of the claw pole fingers. Respective radial support ledges (40A-B, 41A-B) of the body of the claw pole fingers further define the channel space. The combination of the opposing side surfaces and corresponding radial support ledges provide a channel having radial and circumferential boundaries for containment of the magnets. Amlee at col. 7, ln. 27. Thus, the magnets of Amlee float in a channel between the side surfaces and the radial support ledges of the bodies of opposing claw poles.

Amlee does not teach or suggest that the surfaces of the claw poles have grooves in which the magnets are then positioned between interleaved claw poles. In contrast, in amended Claim 1, Applicants clearly claim that the interlaced poles include grooves profiled along an axis and accommodate the magnet between the interlaced poles of the pole pieces, the groove profile completely preventing the magnet escaping from the grooves in a plane perpendicular to the axis. Accordingly, as Amlee fails to teach each and every aspect of Applicants' claimed invention, specifically grooves in the interlaced poles, Applicants submit that this rejection has been obviated.

Claims 1-4 and 12-14 were rejected under 35 U.S.C. § 102(e) as being anticipated by Irie et al (US 5,973435, hereinafter "Irie"). The Office Action asserts that Irie teaches an alternator comprising claw poles interlaced, the claw pole having a groove formed by the body of the claw pole and a flange (40), the groove accommodating at least one magnet (34) and a strip (30) interposed between the magnet and the groove.

Applicants respectfully traverse this rejection. Applicants first note that the Irie reference is not listed on the Notice of References Cited attached with the Office Action. In any event, Applicants submit that Irie does not anticipate Applicants' claimed invention. Irie teaches an alternator having six claw poles and a ring-shaped magnet holder with twelve holding members for twelve magnets. The claw poles are positioned between alternating pairs of the holding members, each claw pole having flanges on circumferentially opposite sides thereof to hold the magnet holder securely against centrifugal force during operation. See Irie at col. 3, line 10-16 and Fig. 5. The claw poles are wedge-shaped with flanges on the wide end of the wedge, the side surfaces of the wedge-shaped claw pole and the flanges defining a channel against which the magnet holder is positioned. See Fig. 3-4. Thus, as disclosed, the claw poles in Irie are neither interlaced nor grooved, Irie failing to disclose weaved claw poles or a distinct groove in the surface of a individual claw pole.

Irie does not teach or suggest that the surfaces of the claw poles have grooves in which the magnets are then positioned between interleaved claw poles. In contrast, in amended Claim

1, Applicants clearly claim that the interlaced poles include grooves profiled along an axis which accommodates the magnet between the interlaced poles of the pole pieces, the groove profile completely preventing the magnet escaping from the grooves in a plane perpendicular to the axis. Accordingly, as Irie fails to teach each and every aspect of Applicants' claimed invention, specifically grooves in the claw poles supporting magnets between interlaced poles, Applicants submit that this rejection has been obviated. Accordingly, amended Claim 1 is believed to be distinguishable over the cited references and in condition for allowance.

With respect to Claims 2-4 and 12-14, each claim depends from and includes all the limitations of base Claim 1, which, as amended is believed to be allowable over the prior art. Accordingly, Claims 2-4 and 12-14 should also be allowable based on their dependency therefrom as well as other novel subject matter included therein.

Rejection Under 35 U.S.C. § 103(a)

Claims 5-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Amlee (or Irie) in view of the level of ordinary skill in the art, the Office Action asserting that the cited references disclose claw poles configured with grooves for accommodating a magnet therein in order to retain the magnet in place, with a strip covering the magnet for magnet protection. Thus, the Offices Action asserts that two strips, interposed opposite surfaces of the magnet, a U-shape and V-shape profile are obvious variations to one having skill in the art.

Claims 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Amlee (or Irie) in view of Yamada et al (US 5,734,216, hereinafter "Yamada "), which allegedly teaches use of an adhesive layer between a magnet and the yoke of a magnet to prevent thermal damage. The Office Action asserts such a combination to be a obvious matter of engineering design choice.

Claims 10-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Amlee (or Iriel) and Yamada in view of Mitcham et al (US 5,877,578, hereinafter "Mitcham"), which allegedly teaches a permanent magnet comprising a plurality of separate magnet parts that are

bonded together. The Office Action asserts such a combination to be a obvious to one having skill in the art.

As regards rejected Claims 5-8, 9, and 10-11, each depends, directly and indirectly, from Claim 1. Each dependent claim includes each and every limitations of the independent base claim, in this case, Claim 1. As noted above, amended Claim 1 is believed to be distinguishable from the cited Amlee and Irie references. Specifically, Amlee and Irie fails to disclsoes or suggest that the claw poles be grooved and that the grooves in the claw poles supporting magnets between interlaced poles of the claw poles. Therefore, based on theirt dependency, Claims 5-8, 9 and 10-11 are also believed to be distinguished from the cited references for the reasons noted above. Accordingly, Claims 5-8, 9 and 10-11 should also be in condition for allowance.

New Claims

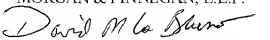
Applicant has added new Claims 15-30. New Claim 16 is dependent from Claim 1 and claims with particularity the material comprising the strip. Accordingly, Claim 16 should be allowable based upon that dependency as well as the novel subject matter contained therein. New Claims 16-29 and 30 are believed to present the subject matter of the invention in a manner somewhat different from the claims of the initial claim set. Applicant believes that no new matter has been added by these claims, as they are fully consistent with the scope of the claims in the initial claim set. Therefore, Claims 16-29 and 30 should also be allowable. Accordingly allowance of such claims is respectfully requested.

CONCLUSION

Based on the foregoing remarks, it is respectfully submitted that the claims as currently pending are patentable and in condition for allowance. Reconsideration of the application and withdrawal of the rejections are respectfully requested.

In the event that a telephone conference would facilitate examination in any way, the Examiner is invited to contact the undersigned representative at the number provided.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.



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